



## **SAW Components**

### **SAW RF filter**

Short range devices

<b>Series/type:</b>	<b>B3723</b>
<b>Ordering code:</b>	<b>B39871B3723Z610</b>
<b>Date:</b>	<b>August 05, 2008</b>
<b>Version:</b>	<b>2.0</b>



SAW Components

B3723

SAW RF filter

869.00 MHz

Data sheet

**SMD**

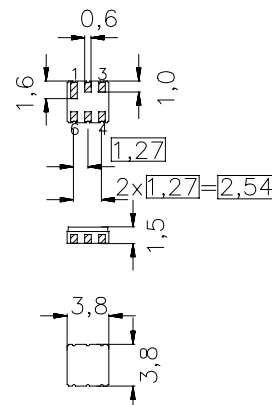
### Application

- Low-loss RF filter for remote control receivers
- No matching network required for operation at 50 Ω



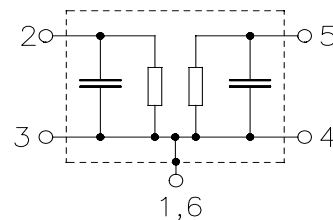
### Features

- Package size 3.8 x 3.8 x 1.5 mm<sup>3</sup>
- Package code DCC6
- RoHS compatible
- Approximate weight 0.07 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- Passivation layer Elpas
- AEC-Q200 qualified component family
- **Electrostatic Sensitive Device (ESD)**



### Pin configuration

- 2 Input
- 5 Output
- 1,3,4,6 Ground



Please read *cautions and warnings and important notes* at the end of this document.



Data sheet



Characteristics (reduced operating temperature range)

Temperature range for specification:  $T = -20\text{ °C to }+70\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	$f_C$	—	869.00	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	2.5	3.5	dB
868.00 ... 870.00 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0.3	1.3	dB
868.00 ... 870.00 MHz					
<b>Return loss (input / output)</b>		10	20	—	
868.00 ... 870.00 MHz					
<b>Attenuation</b>	$\alpha$				
10.00 ... 300.00 MHz		45	50	—	dB
300.00 ... 853.00 MHz		40	44	—	dB
879.00 ... 883.00 MHz		20	30	—	dB
883.00 ... 915.00 MHz		45	55	—	dB
915.00 ... 945.00 MHz		40	45	—	dB
945.00 ... 1200.00 MHz		45	55	—	dB
1200.00 ... 2000.00 MHz		35	40	—	dB



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Data sheet



**Characteristics**

Temperature range for specification:  $T = -40\text{ °C to }+85\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	$f_C$	—	869.00	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	2.5	4.0	dB
868.00 ... 870.00 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0.3	1.7	
868.00 ... 870.00 MHz					
<b>Return loss (input / output)</b>		10	20	—	
868.00 ... 870.00 MHz					
<b>Attenuation</b>	$\alpha$				
10.00 ... 300.00 MHz		45	50	—	dB
300.00 ... 853.00 MHz		40	44	—	dB
879.00 ... 883.00 MHz		15	30	—	dB
883.00 ... 915.00 MHz		45	55	—	dB
915.00 ... 945.00 MHz		40	45	—	dB
945.00 ... 1200.00 MHz		45	55	—	dB
1200.00 ... 2000.00 MHz		35	40	—	dB

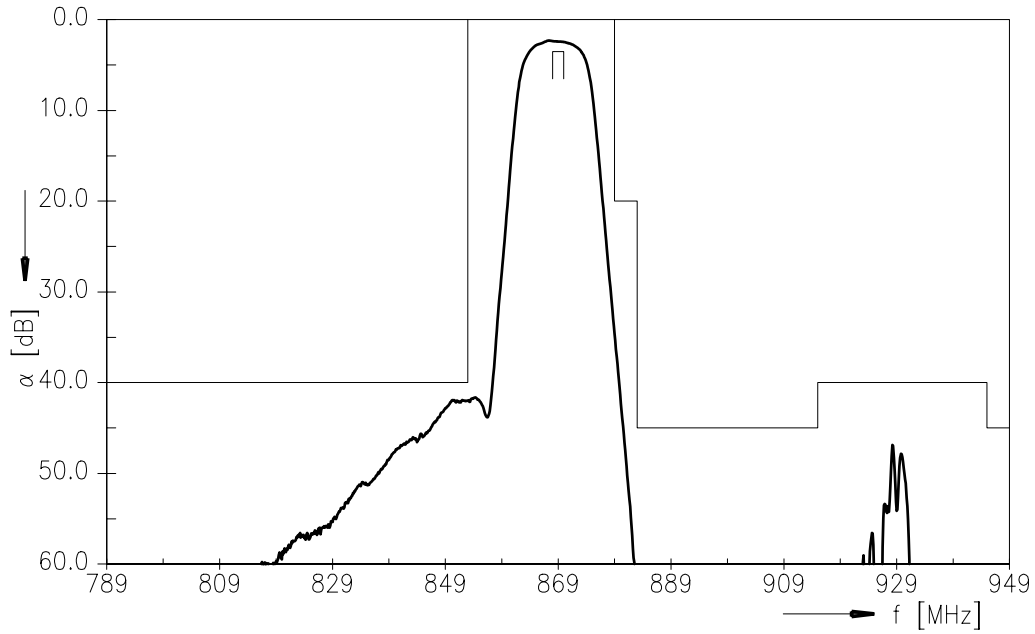
**Maximum ratings**

Operable temperature range	T	-45/+125	°C	
Storage temperature range	T <sub>stg</sub>	-45/+125	°C	
DC voltage	V <sub>DC</sub>	0	V	
Source power	P <sub>S</sub>	13	dBm	source impedance 50 Ω
Source power	P <sub>S</sub>	18	dBm	duty cycle 1:10,
868 MHz to 870 MHz				-40 °C to +85 °C

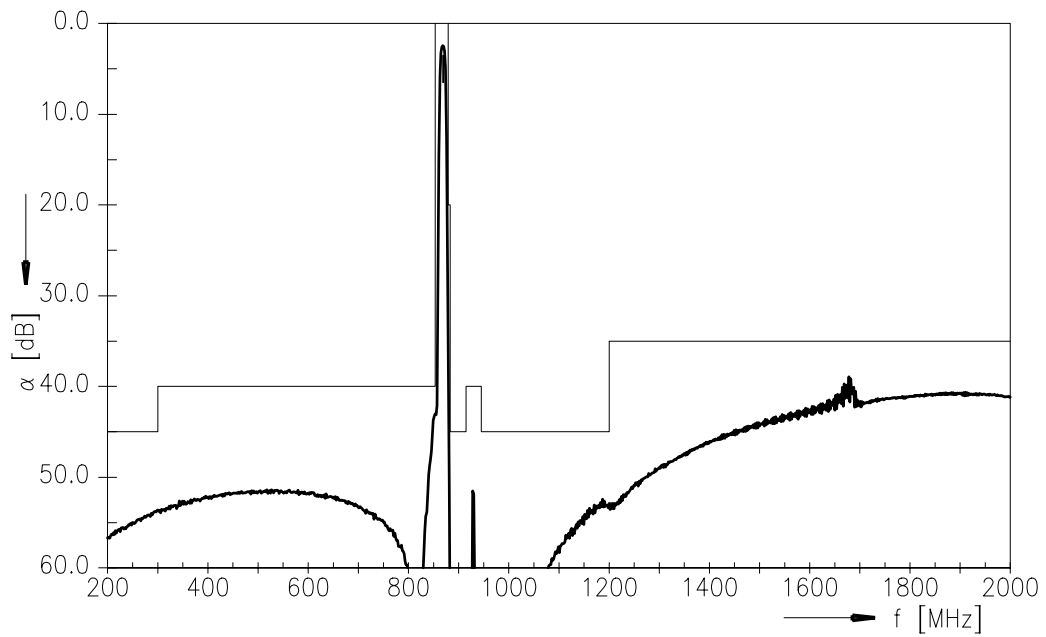
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Transfer function



Transfer function (wide band)

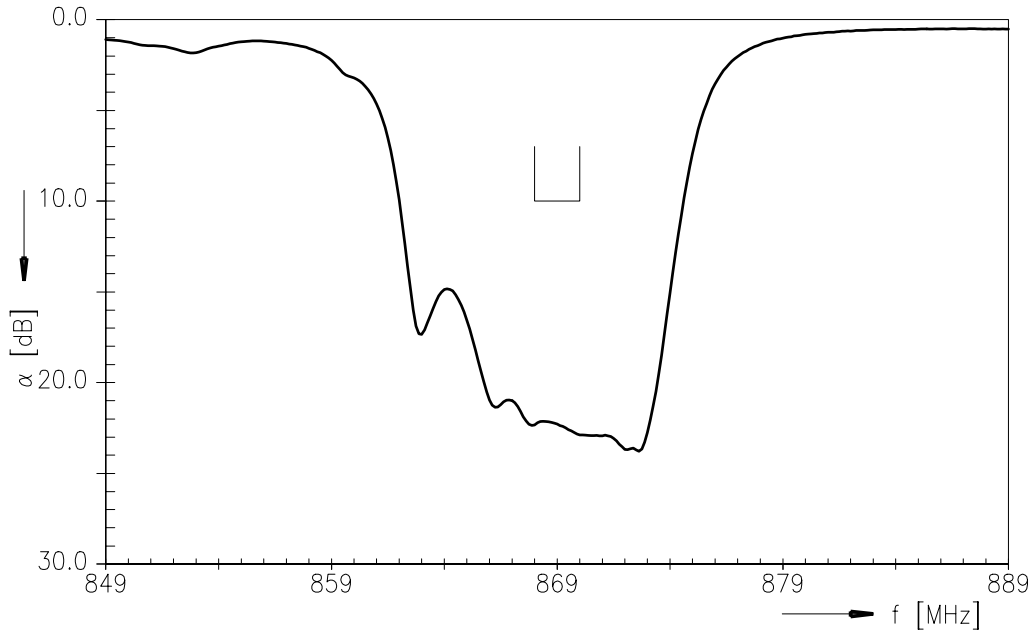




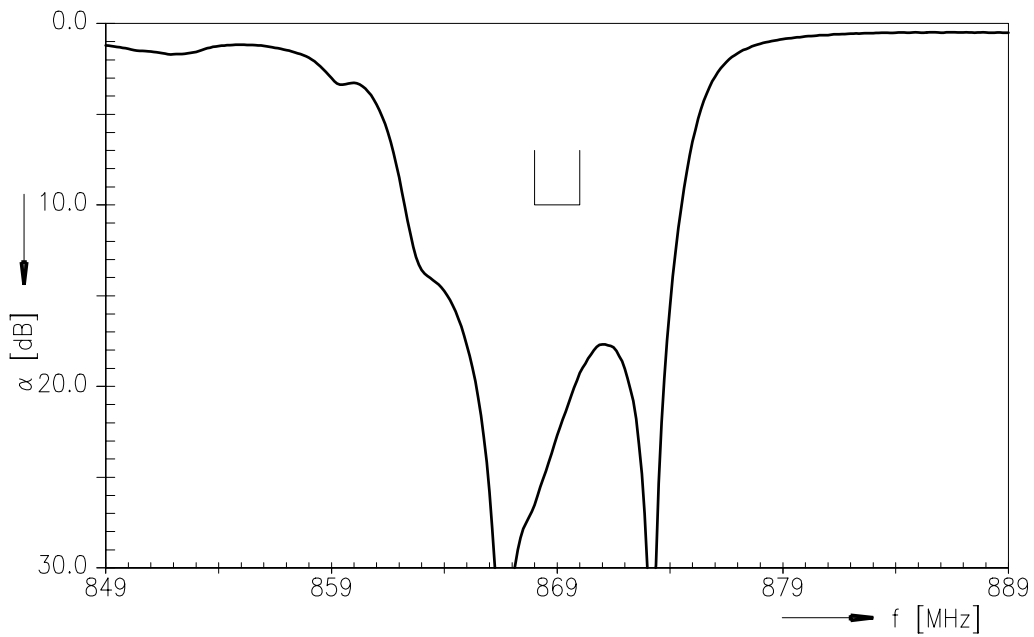
Data sheet



S11



S22





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B3723

SAW RF filter

869.00 MHz

Data sheet



## References

Type	B3723
Ordering code	B39871B3723Z610B
Marking and package	C61157-A7-A41
Packaging	F61074-V8167-Z000
Date codes	L_1126
S-parameters	B3723_NB.s2p B3723_WB.s2p See file header for port/pin assignment table.
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."

For further information please contact your local EPCOS sales office or visit our webpage at [www.epcos.com](http://www.epcos.com).

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Please read *cautions and warnings and important notes* at the end of this document.

7 August 05, 2008



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